

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 31 JAN 1935
 Index. No.
 (For London Office only.)

30201.

D. 146

row named "Lencovet"

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tanker
 having Long Poop & Forecastle.
 Port of Survey Hull
 Date of Survey 29th Jan. 1935.
 Name of Surveyor A.H. Stoker.
 Particulars of Classification * 100A.1.
W hyd m3, 9-34 ✓

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>"KAZAN" Ex "AGE"</u>	<u>Russian, Odessa.</u>	✓	<u>4418</u>	<u>1923.1</u>

Moulded Dimensions: Length 364.0 Breadth 52.5 Depth 26.8
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 7366. tons
 Coefficient of fineness for use with Tables .758.

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>26.6</u>	(a) Where D is greater than Table depth (D - Table depth) R = $(26.71 - 24.23) 2795$ <u>= + 6.93"</u> ✓	Moulded Breadth (B) <u>52.50</u> Standard Round of Beam = $\frac{B \times 12}{50} = 12.60$ Ship's Round of Beam <u>13.5</u> ✓ = <u>13.50</u> Difference <u>Excess .90"</u>
Stringer plate ... <u>0.4</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓	Restricted to Correction = $\frac{\text{Diff}^2}{4} \times (1 - \frac{S_1}{L}) = \frac{.90^2}{4} \times .3274 = -.07"$
Sheathing on exposed deck T $(\frac{L-S}{L}) =$	If restricted by superstructures ✓	
Depth for Freeboard (D) = <u>26.71</u>		

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<u>213.00</u>		<u>8.0</u>			Standard Height of Superstructure <u>7.134'</u>
" overhang ...	<u>14.25</u>					" " R.Q.D. <u>5.512'</u>
R.Q.D. enclosed ...	<u>213.00</u>	<u>213.00</u> ✓			<u>213.00</u>	Deduction for complete superstructure <u>39.56</u>
" overhang ...						Percentage covered $\frac{S}{L} = 67.60\%$
Bridge enclosed ...						" " $\frac{S_1}{L} = 67.26\%$
" overhang aft ...						" " $\frac{E}{L} = 67.26\%$
" overhang forward ...	<u>2.50</u>	<u>1.25</u>			<u>1.25</u>	Percentage from Table, Line A. <u>58.34%</u>
Fore enclosed ...	<u>27.91</u>	<u>27.91</u>	<u>8.0</u>		<u>27.91</u>	(corrected for absence of forecastle (if required))
" overhang ...	<u>2.25</u>	<u>2.25</u>			<u>2.25</u>	Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required)) ✓
" forward ...						Interpolation for bridge less than .2L (if required) ✓
Tonnage opening aft ...						Deduction = $39.56 \times .5834 = -23.08"$
" forward ...						
Total ...	<u>245.66</u>	<u>244.41</u>			<u>244.41</u>	

Lowest point of sheer approx 60ft aft ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>46.34</u>	1		<u>46.34</u>	<u>28.5</u>	<u>28.00</u>	1		<u>28.00</u>	Mean actual sheer aft = Deficient
$\frac{1}{8}$ L from A.P. ...	<u>20.62</u>	4		<u>82.48</u>	<u>+1"</u>	<u>2.00</u>	4		<u>8.00</u>	Mean actual sheer forward = Excess
$\frac{3}{8}$ L " ...	<u>5.10</u>	2		<u>10.20</u>	<u>-0"</u>	<u>-8.00</u>	2		<u>-16.00</u>	Length of enclosed superstructure forward of amidships = .086
Amidships ...	✓	4		✓	✓	✓	4		✓	" " aft of " = .50
$\frac{3}{8}$ L from F.P. ...	<u>10.20</u>	2		<u>20.40</u>	<u>+23"</u>	<u>23.00</u>	2		<u>46.00</u>	After sheer
$\frac{1}{8}$ L " ...	<u>41.24</u>	4		<u>164.96</u>	<u>60.5</u>	<u>62.50</u>	4		<u>250.00</u>	Standard
F.P. ...	<u>92.68</u>	1		<u>92.68</u>	<u>124.5</u>	<u>124.00</u>	1		<u>124.00</u>	Actual
Total ...	<u>417.06</u>			<u>417.06</u>					<u>483.95</u>	$\frac{483.95}{699.00} = 69.41\%$

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{66.91}{18} = 3.72$ (if limited on account of midship superstructure. $1.53 \times \frac{186}{200} = 1.42"$)
 If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 26.71
 Summer freeboard = 3.85
 Moulded draught (d) = 22.86

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 5.71 = 5 $\frac{3}{4}$ "

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 7951.5$
 Tons per inch immersion at summer load water line
 $T = 37.92$
 Deduction = $\frac{\Delta}{40T}$ inches
 $= 6.27$
 $= 6\frac{1}{4}"$

TABULAR FREEBOARD corrected for Flush Deck (if required)

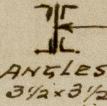
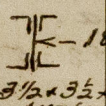
Correction for coefficient

	+	-
Depth Correction ...	<u>6.93</u>	
Deduction for superstructures ...		<u>23.08</u>
Sheer correction ...		<u>1.42</u>
Round of Beam correction ...		<u>.07</u>
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	<u>6.93</u>	<u>24.57</u>
Summer Freeboard =	<u>46.25</u>	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...	<u>11$\frac{1}{4}"$</u>	Tropical Fresh Water Freeboard ...	<u>3' 10$\frac{1}{4}"$</u>
Fresh Water Line " " ...	<u>6$\frac{1}{4}"$</u>	Fresh Water " " ...	<u>2' 11"</u>
Tropical Line " " ...	<u>5"</u>	Tropical " " ...	<u>3' 1$\frac{1}{4}"$</u>
Winter Line below " " ...	<u>4$\frac{1}{2}"$</u>	Winter " " ...	<u>3' 5$\frac{1}{4}"$</u>
Winter North Atlantic Line " " ...	✓	Winter North Atlantic " " ...	<u>4' 2$\frac{3}{4}"$</u>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

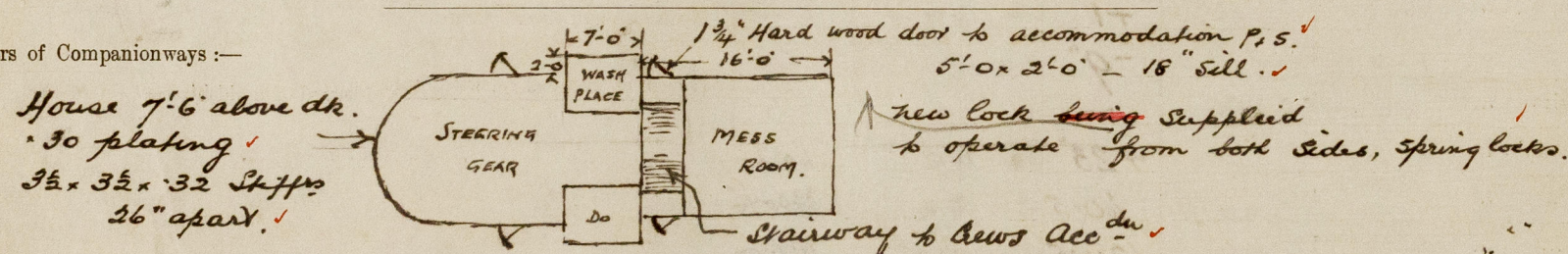
HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS												
Description of Hatchway			Nº 1		Nº 2		Nº 3		Nº 4		Nº 5	
Dimensions of Hatchway			34'x24'		35'x24'		7'6"x24'0"		35'x24'		35'x24'	
COAMINGS	{	Height above Deck	4'0"✓		4'0"✓		4'0"✓		4'0"✓		4'0"✓	
		Thickness { Sides	50		50		50		50		50	
		{ Ends	46		46		46		46		46	
		Stiffeners	10 x 3 1/2 x 1/2 B.A.						10 x 3 1/2 x 5 B.A.			
		Brackets, Stays	Plate stays 8'0" apart✓						Plate stays 8'0" apart✓			
HATCH BEAMS	{	Number	4		4 1/2		3 1/2		4 1/2		4 1/2	
		Spacing	4'3"		4'4 1/2		3'9"		4'4 1/2		4'4 1/2	
		Scantling and Sketch	 19'x40"✓ PLATE ANGLES 3 1/2 x 3 1/2 x 1/4✓		SK. SAME AS Nº 1✓		 18'x40"✓ PLATE 3 1/2 x 3 1/2 x 1/4✓ ANGLES.		SK. SAME AS. Nº 1✓		SK. SAME AS. Nº 1✓	
		Bearing Surface	3"✓		3"✓		3"✓		3"✓		3"✓	
		FORE AND AFTERS	{	Number								
Spacing												
Unsupported Lengths												
Scantling* and Sketch												
Bearing Surface					None✓							
HATCH COVERS	{	Material	O.P.		O.P.		O.P.		O.P.		O.P.	
		Thickness	3"✓		3"✓		3"✓		3"✓		3"✓	
		How fitted	F.A.		F.A.		F.A.		F.A.		F.A.	
		Bearing Surface	3"✓		3"✓		3"✓		3"✓		3"✓	
		Spacing of Cleats	34"✓		34"✓		34"✓		34"✓		34"✓	
Number of Tarpaulins			2		2		2		2		2	
1 additional set being supplied for all hatches.✓												
*Are wood fore and afters steel shod at all bearing surfaces? Are battens and wedges efficient and in good condition? Are tarpaulins in good condition and in accordance with rule requirements? Are lashings provided in accordance with rule requirements?												
yes - a number of wedges being renewed. new.✓ yes. 3 locking bars in each large hatch, 1 over Nº 3.												

Particulars of fiddle, funnel and ventilator coamings:— Fiddle, funnel, and ventilator coamings in efficient condition. Fiddle gratings covered by hinged steel storm covers. Engine room skylight of steel strongly constructed. Coal shoot and trunk top 9" B.A. Coaming, 3" wood covers, 3" bearing surface, battens & cleats & 2 tarpaulins, (1 additional being supplied). 3 E.R. Vents and 2 B.R. Vents in good condition.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—



Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

Fore: 1-9" dia to fore space 2'6" x 3'6" will be 2-32" dia 2'6" above wind de 38" 1-22" dia. Coaming 38" 10' above P.D.K. 1-7" " " Paint room 3'0" x 3'6" 1-22" 4'3" D.K. Coaming 38" 2-22" 38" 3'6" 10' above P.D.K. 1-7" " " Camp room 3'0" x 3'6" 1-22" 4'3" P.D.K. 1-22" 38" 3'6" 10' above P.D.K. 1-22" 38" 3'6" 10' above P.D.K. Ventilator coamings constructed in accordance with rule requirements wood plugs & canvas covers supplied.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

4" dia pipe 9' above dk G.N. to fore peak tank. 3" B. tank air pipes 2" dia. G.N. 3'6" above dk. to mouth. 3" x 4" 18" - G.N. - AFTER 3'9" above dk in well (under bulwark rail). wood plugs with chain and canvas covers being supplied, for all air pipes.

Particulars of Gangway Cargo and Coaling Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes:—

1 pipe scupper p.s. at aft end of fore well through deck & shell. other weather deck scuppers gunwale bar type. All sanitary discharge pipes fitted with storm valves, above upper br. level. 2 scuppers p.s. in forward well - 4 scuppers p.s. on Long Poop.

Particulars of Side Scuttles:—

In forecabin and in poop accommodation of substantial construction with hinged deadlights, 2 glasses & sole being renewed. 2 glasses to crew's access, being renewed. 10 Eng. Room Sky, 4 glasses being renewed.

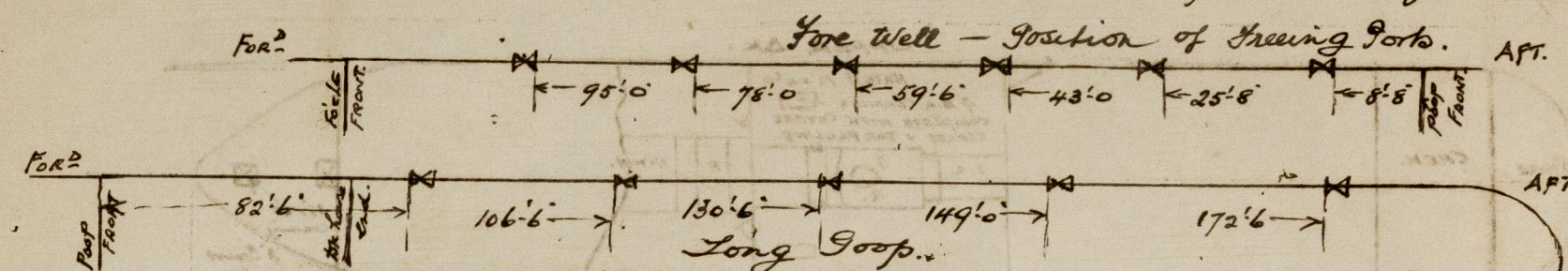
Particulars of Guard Rails:—

On forecabin rails 3'6" high - 3 rods. and stanchions spaced 4'6" apart.

Steel bulwark in well and for full length of Long Poop. Strongly constructed and stayed by 8" bulk stays spaced 4'0" apart.

Particulars of Gangways, Lifelines, etc:—

Scupper openings made for regular lifelines in all parts of the ship. No lifelines supplied or provided for.



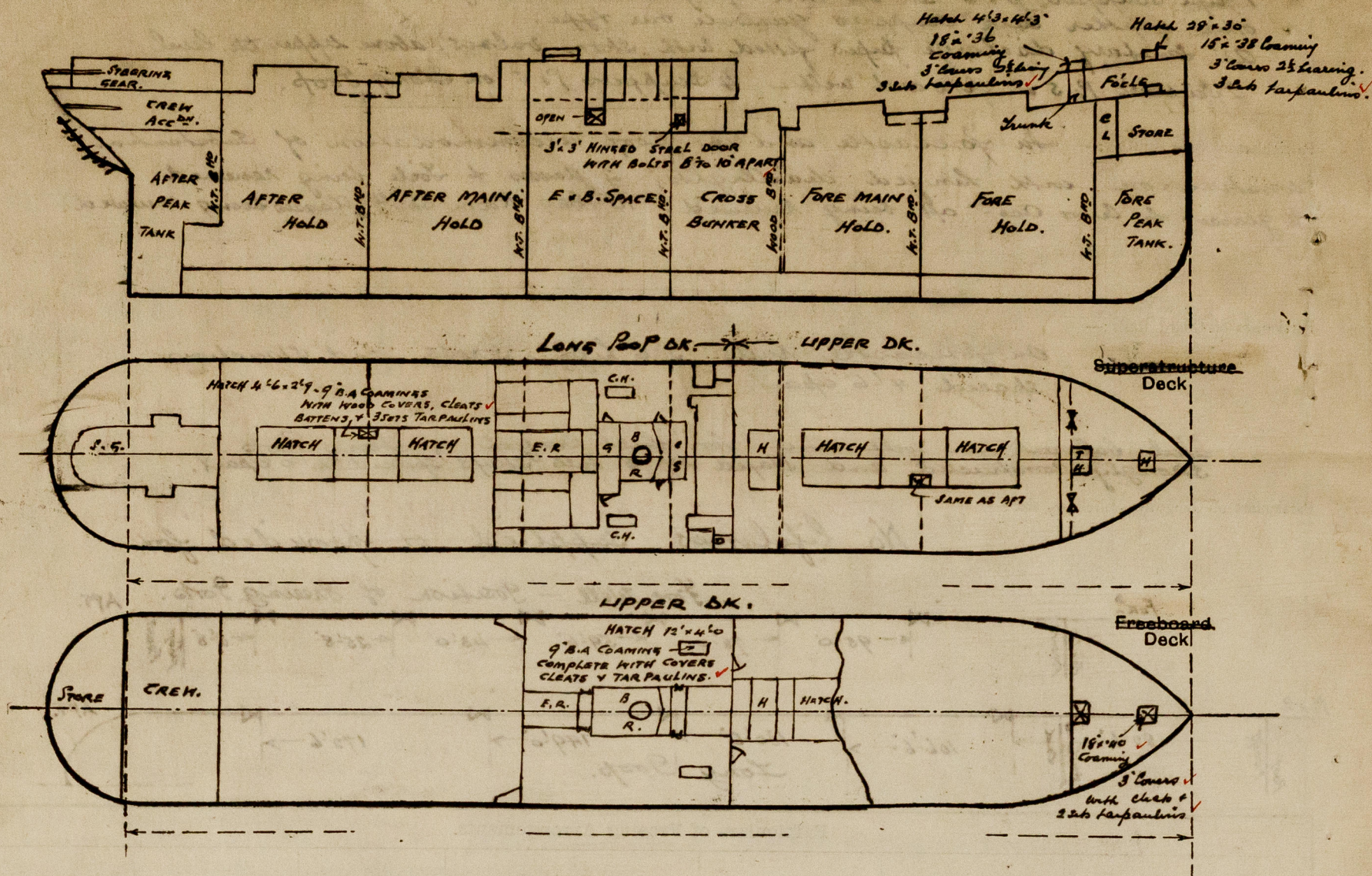
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Long Poop Deck	approx					
After Well	137'0" from base end	4'0"	3'0" x 1'6"	5	22.00	13.70
Forward Well	123'0"	4'3"	3'0" x 1'6"	6	26.50	24.60
State position of each freeing port (F. and A. position and height above deck edge) Long Poop 12" sill, see sk. above for positions. After Well: Forward Well: 15" "						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 2" vertical bars						
Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	34'x40'	40	9 1/2 x 3 1/2 x 42'	25' to 27'	18" btl top & bottom	4'6" x 3'0"	26"	8'0"
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecabin Bulkhead	18'x38'	34	5'x3 1/2 x 40'	36" to 42"	none	6'x4'	18"	
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	18'x42'	38	3 1/2 x 3 x 34'	26" to 30"	all btl as top	4'0" x 1'10"	18"	7'9"
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	25	25	3 1/2 x 3 x 34'	26" to 30"	none	(A) 5'6" x 5'6" (B) 3'0" x 3'0"	18"	8'0"
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	Two hinged steel doors with screwed bolts spaced 6" apart
Raised Quarter Deck Bulkhead	through the plate & door.
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecabin Bulkhead	2 openings 6'0" x 4'0" with 3" storm boards in riveted channels full height
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Hinged steel doors with spring locks operated from both sides.
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	A. No means of closing B. Hinged steel door with bolts through plating & door.
Deckhouses on Flush Deck Ships	

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

No part of Special Periodical Survey held at this time.
This vessel was surveyed in the King George Dry Dock. 29.1.35.

Builder's name and yard number

J. L. Thompson & Sons.

Names of sister ships

✓

Owners

Tortorgflot

Fee £ 15

Received by me



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